Paper No. 30

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Ex parte LOEKE BREDERVELD, WILHELMUS J. M. DIEPSTRATEN, JOHANNES P. N. HAAGH, HENDRIK MOELARD, and JAN HOOGENDOORN

Appeal No. 1997-1378
Application No. 08/065,328

ON BRIEF

Before THOMAS, RUGGIERO, and BARRY, Administrative Patent Judges.

RUGGIERO, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on the appeal from the final rejection of claims 1-19, all of the claims pending in the present application.

The claimed invention relates to a method of operating a local area network (LAN) that includes a wireless mobile

station and a plurality of base stations, the base stations having coverage areas referred to as communication cells. More particularly, a handover procedure is provided for transferring communication between one of the base stations and another as the mobile station leaves the coverage area of one cell and enters another. The mobile station monitors the quality of beacon messages transmitted from a first base station and, on determination of unacceptable quality, enters a search mode in which the quality of beacon messages from other base stations is determined.

Claim 1 is illustrative of the invention and reads as follows:

Claim 1. A method of operating a wireless local area network system having a plurality of base stations and a mobile station, comprising the steps of:

transmitting beacon messages from the base stations at regular intervals, each beacon message including an identification of the respective base station transmitting that message;

operating the mobile station in a normal mode wherein beacon messages from a first base station only are monitored;

determining a communications quality value for the beacon messages from the first base station;

determining if the communications quality value becomes unacceptable, and if so, changing the operating mode of the

mobile station to a search operating mode wherein beacon messages received from any of the base stations are monitored;

selecting one of the base stations which provide an acceptable communications quality value for monitored beacon messages; and

changing the operating mode of the mobile station to the normal operating mode wherein beacon messages from the slected [sic., selected] base station only are monitored.

The Examiner relies on the following prior art:

Imaseki	3,913,017	Oct. 14, 1975
Furuya	5,101,503	Mar. 31, 1992
Natarajan	5,212,806 (Filed Oct. 29, 1990)	May 18, 1993
Stengel (published PCT International Application)	WO 92/14309	Aug. 20, 1992

Claims 1-19 stand finally rejected under 35 U.S.C. § 103. As evidence of obviousness, the Examiner offers Natarajan in view of Imaseki with respect to claims 1-3, 9-13, and 19, adding Furuya to the basic combination with respect to claims 4, 5, 14, and 15, and adding Stengel to the basic combination with respect to claims 6-8 and 16-18.

Rather than reiterate the arguments of Appellants and the Examiner, reference is made to the Briefs[1] and Answer for the respective details.

OPINION

We have carefully considered the subject matter on appeal, the rejection advanced by the Examiner and the evidence of obviousness relied upon by the Examiner as support for the rejection. We have, likewise, reviewed and taken into consideration in reaching our decision, Appellants' arguments set forth in the Briefs along with the Examiner's rationale in support of the rejection and arguments in rebuttal set forth in the Examiner's Answers.

It is our view, after consideration of the record before us, that the evidence relied upon and the level of skill in

[1] The original Appeal Brief was filed June 5, 1995. In response to the Examiner's Answer dated September 5, 1995, a Reply Brief was filed October 11, 1995. The Examiner entered the Reply Brief and submitted a Supplemental Examiner's Answer entitled "Response to Reply Brief" on February 4, 1997.

the particular art would have suggested to one of ordinary skill in the art the invention as set forth in claims 1-3, 6, 7, 9-13, 16, 17, and 19. We reach the opposite conclusion with respect to claims 4, 5, 8, 14, 15, and 18. Accordingly, we affirm-in-part.

Appellants have indicated (Brief, page 7) that, for the purposes of this appeal, the claims will stand or fall together in the following groups: Group I (claims 1-3, 9-13, and 19), Group II (claims 4, 5, 14, and 15), Group III (claims 6 and 16), Group IV (claims 7 and 17), and Group V (claims 8 and 18). Consistent with this indication, Appellants have made no separate arguments with respect to any of the claims within each group. Accordingly, we will consider the claims separately only to the extent that separate arguments are of record in this appeal. Any dependent claim not argued separately will stand or fall with its base claim.

As a general proposition in an appeal involving a rejection under 35 U.S.C. § 103, an Examiner is under a burden to make out a prima facie case of obviousness. If that burden is met, the burden of going forward then shifts to Appellants to overcome the prima facie case with argument and/or

evidence. Obviousness is then determined on the basis of the evidence as a whole and the relative persuasiveness of the arguments. See In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992); In re Hedges, 783 F.2d 1038, 1039, 228 USPQ 685, 686 (Fed. Cir. 1986); In re Piasecki, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984); and In re Rinehart, 531 F.2d 1048, 1052, 189 USPQ 143, 147 (CCPA 1976). Arguments which Appellants could have made but elected not to make in the Briefs have not been considered in this decision (note 37 CFR § 1.192).

With respect to representative independent claim 1 from the claims of Group I, the Examiner, as the basis for the obviousness rejection, proposes to modify the wireless communication system disclosure of Natarajan. In the Examiner's view (Answer, pages 3 and 4), the skilled artisan would have found it obvious to increase reliability in Natarajan by adding a communication quality determining feature to initiate a base station search mode as taught by Imaseki.

In response, Appellants assert (Brief, pages 11 and 12) that the Examiner has failed to provide proper motivation for

the proposed combination of Natarajan and Imaseki to establish a prima facie case of obviousness. After considering the arguments of record, we initially agree with Appellants that, since Natarajan has an existing signal quality determination feature in place, the need for such a feature as taught by Imaseki is obviated.

On further review and analysis of the language of representative claim 1, however, we find Imaseki's selective channel communication teachings to be cumulative to that of Natarajan. Further, it is our view that the Figure 5 illustration and accompanying description in Natarajan discloses all of the recited method steps of representative claim 1. We note that the relevant portion of claim 1, to which Appellants'

arguments are particularly directed, recites:[2]

> determining if the communications quality value becomes unacceptable, and if so, changing the operating mode of the mobile station to a search operating mode wherein beacon messages received from any of the base stations are monitored; ...

[2] Similar recitations appear in claims 9 and 19, the other independent claims on appeal.

It is our finding that the illustrated flow chart of Natarajan's Figure 5 clearly describes such feature. After a determination that signal quality in a normal operating mode (block A, column 9, line 28) is not acceptable, a search mode illustrated in the left branch of the Figure 5 flow chart is initiated to monitor signals from potential base station "owners" of the mobile unit.[3]

A disclosure that anticipates under 35 U.S.C. § 102 also renders the claim unpatentable under 35 U.S.C. § 103, for "anticipation is the epitome of obviousness." Jones v. Hardy, 727 F.2d 1524, 1529, 220 USPQ 1021, 1025 (Fed. Cir. 1984). See also In re Fracalossi, 681 F.2d 792, 794, 215 USPQ 569, 571 (CCPA 1982); In re Pearson, 494 F.2d 1399, 1402, 181 USPQ 641, 644 (CCPA 1974). Thus, we sustain the Examiner's rejection of representative claim 1, and claims 2, 3, 9-13, and 19 which fall with claim 1, under 35 U.S.C. § 103.[4]

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[3] In the footnote at the bottom of page 4 of the Reply Brief, Appellants admit that Natarajan provides a communication quality determination feature by monitoring acceptable signal levels.

[4] The Board may rely on one reference alone in an obviousness rationale without designating it as a new ground of rejection. In re Bush, 296 F.2d 491, 496, 131 USPQ 263,

Turning to a consideration of dependent claims 6, 7, 16, and 17 which are directed to the use of a background noise factor in determining signal quality, we sustain the obviousness rejection of these claims as well. In the Examiner's analysis (Answer, page 5), the skilled artisan having been motivated by a desire to increase the accuracy of signal, quality determination in the combined system of Natarajan and Imaseki[5], would have found it obvious to utilize a background noise factor in determining signal quality as taught by Stengel. In our view, the Examiner's line of reasoning is reasonable enough to establish a prima facie case of obviousness so as to shift the burden to Appellants to come forward with arguments and/or evidence to rebut the prima facie case.

Appellants' initial argument in response (Brief, page 17) contends that, contrary to the Examiner's assertion, Stengel does not disclose all of the recited limitations of the

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266-67 (CCPA 1961); In re Boyer, 363 F.2d 455, 458, n.2, 150 USPQ 441, 444, n.2 (CCPA 1966).

[5] As discussed supra, it is our finding that the teachings of Natarajan and Imaseki are cumulative to each other.

claimed signal quality determination feature. After careful review of the Stengel reference, however, we are in agreement with the Examiner's position as stated in the Answer. In our view, the passages cited by the Examiner from page 5 of Stengel related to the noise/RSSI analysis system disclose Appellants' background noise factor as claimed.

Appellants' further argument that Stengel is deficient since there is no disclosure of representation of background noise as a portion of a base station transmitted beacon message is equally unpersuasive. Stengel has been cited by the Examiner for the limited purpose of providing a teaching of utilizing background noise factors in determination of signal quality. This reference is used in combination with Natarajan which clearly describes analysis of beacon messages transmitted from base stations. One cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. In re Keller, 642 F. 2d 413, 208 USPQ 871 (CCPA 1981); In re Merck & Co., Inc., 800 F. 2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Therefore, the Examiner's 35 U.S.C. § 103 rejection of dependent claims 6, 7, 16, and 17 is sustained.

We next consider dependent claims 4, 5, 14, and 15 and note that, while we found Appellants' arguments to be unpersuasive with respect to claims 1-3, 6, 7, 9-13, 16, 17, and 19 discussed supra, we reach the opposite conclusion with respect to claims 4, 5, 14, and 15. These claims are directed to the provision of a second threshold value comparison during the search mode following the first threshold value comparison which initiates the search mode feature. To address this feature, the Examiner relies on Furuya which discloses a cordless telephone system in which different carrier sensing threshold values are utilized to prevent interference between stations. As disclosed, for example, at column 1, lines 23-35 of Furuya, a lower threshold value is utilized during system startup with the threshold values being increased during widespread use of the system when the number of stations and communication traffic has increased.

In response, Appellants assert (Brief, page 15) that the Examiner has failed to set forth a prima facie case of obviousness since proper motivation for one of ordinary skill to make the Examiner's proposed combination has not been established. Upon careful review of the applied prior art, we

are in agreement with Appellants' stated position in the Brief. The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification. In re Fritch, 972 F. 2d 1260, 1266, 23 USPQ2d 1780, 1783-84 (Fed. Cir. 1992). In the present instance, we fail to see how Furuya's system which is designed to assure an empty channel of communication in a cordless telephone system would have relevance to the operation of the cell handover features of the prior art wireless LAN network of Natarajan or the channel connection system of Imaseki. None of the problems sought to be overcome by Furuya would be expected to exist in the communication systems of Natarajan or Imaseki. Further, the Examiner has provided no indication as to how and in what manner the disclosures of Natarajan and/or Imaseki would be modified with the addition of Furuyama to arrive at the claimed invention. In our view, the only reason on the record for the skilled artisan to modify Natarajan or Imaseki in the manner suggested by the Examiner would be through impermissible hindsight reconstruction of Appellants' invention.

We further find Appellants arguments to be convincing with respect to dependent claims 8 and 18. These claims provide a more detailed recitation of the background noise factor in determining signal quality discussed supra with respect to the Examiner's addition of Stengel to address the features of claims 6, 7, 16, and 17. In particular, claims 8 and 18 include a specific recitation of the determination of the maximum value of the background noise level of the mobile station and the base station in the received beacon message. We agree with Appellants that, contrary to the Examiner's assertion, the total noise power determined by Stengel does not meet the specific requirements of the claimed maximum value determination.

Since, for all of the reasons discussed above, we are of the opinion that the prior art applied by the Examiner does not support the obviousness rejection, we do not sustain the 35 U.S.C. § 103 of dependent claims 4, 5, 8, 14, 15, and 18.

In conclusion, we have sustained the Examiner's 35 U.S.C. § 103 rejection of claims 1-3, 6, 7, 9-13, 16, 17, and 19, but have not sustained the 35 U.S.C. § 103 rejection of claims 4,

5, 8, 14, 15, and 18. Accordingly, the decision of the Examiner rejecting claims 1-19 is affirmed-in-part.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED-IN-PART

JAMES D. THOMAS Administrative Patent Judge	)
JOSEPH F. RUGGIERO Administrative Patent Judge	) BOARD OF PATENT APPEALS AND INTERFERENCES
LANCE LEONARD BARRY	)

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Appeal No. 1997-1378
Application No. 08/065,328

APJ RUGGIERO

APJ BARRY

APJ THOMAS

DECISION: AFFIRMED-IN-PART
Send Reference(s): Yes No
or Translation (s)
Panel Change: Yes No
Index Sheet-2901 Rejection(s):

Prepared: September 19, 2001

Draft Final

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PALM / ACTS 2 / BOOK
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